FLUID POWER (FPX)

FPX 100 (3 credit hours)
Fluid Power
Includes fluid power theory, component identification and application, schematic reading, and basic calculations related to pneumatic and hydraulic systems and their operations. Lecture: 3 credits (45 contact hours).
Co-requisite: FPX 101 or Consent.
Attributes: Course Also Offered in Modules, Technical
Components: LEC: Lecture

FPX 101 (2 credit hours)
Fluid Power Lab
Provides practical experiences in the study of fluid power theory, hydraulics and pneumatics component identification, schematic reading, and basic calculations related to hydraulic and pneumatic systems and their operations. Laboratory: 2 credits (60 contact hours).
Co-requisite: FPX 100 or Consent of Instructor.
Attributes: Course Also Offered in Modules, Technical
Components: LAB: Laboratory

FPX 1001 (0.3 credit hours)
Introduction to Fluid Power
Introduces the basic concepts of fluid power and provides an opportunity to discuss the application of those concepts in the development of hydraulic and pneumatic systems. Includes a general discussion on the safe working practices required with fluid power systems. Lecture: .3 credit (4.5 contact hours).
Co-requisite: FPX 1011 or Consent.
Components: LEC: Lecture

FPX 1002 (0.3 credit hours)
Introduction to Hydraulic System Maintenance
Familiarizes the student with hydraulic fluids, reservoirs, and filters. Covers the methodologies required when servicing a typical hydraulic system. Includes a general discussion on the safe working practices required with fluid power systems. Lecture: 0.3 credit (4.5 contact hours).
Pre-requisite: [(FPX 1001 and FPX 1011) with a grade of C or better] or Consent.
Co-requisite: FPX 1012 or consent.
Components: LEC: Lecture

FPX 1003 (0.4 credit hours)
Introduction to Pneumatic System Maintenance
Introduces pneumatic system maintenance. Covers the skills required to service modern pneumatic and air preparation systems. Includes a general discussion on the safe working practices required with fluid power systems. Lecture: 0.4 credit (6.0 contact hours).
Co-requisite: FPX 1013 or Consent.
Components: LEC: Lecture

FPX 1004 (1 credit hours)
Hydraulic System Components and Applications
Introduces the basic fundamentals of hydraulic component, system design, and operation. Covers higher level schematic layout and design as well as the specifics involved with the actual component selection. Provides an opportunity to design and build actual hydraulic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion on the safe working practices required with fluid power systems. Lecture: 1 credit (15 contact hours).
Co-requisite: FPX 1014 or Consent.
Components: LEC: Lecture

FPX 1005 (1 credit hours)
Pneumatic Systems and Components
Introduces the basic fundamentals of pneumatic components and operation. Covers higher level schematic layout and design as well as the specifics involved with the actual component selection. Provides the opportunity to design and build actual pneumatic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion on the safe working practices required with fluid power systems. Lecture: 1 credit (15 contact hours).
Co-requisite: FPX 1015 or Consent.
Components: LEC: Lecture

FPX 1011 (0.3 credit hours)
Introduction to Fluid Power Lab
Introduces the basic concepts of fluid power and discusses the application of those concepts in the development of hydraulic and pneumatic systems. Includes a general discussion on the safe working practices required with fluid power systems. Lab: 0.3 credits (9 contact hours).
Co-requisite: FPX 1001 or Consent.
Components: LAB: Laboratory

FPX 1012 (0.3 credit hours)
Introduction to Hydraulic System Maintenance Lab
Introduces pneumatic system maintenance. Familiarizes students with hydraulic fluids, reservoirs, and filters. Covers the methodologies required when servicing a typical hydraulic system. Includes a general discussion on the safe working practices required with fluid power systems. Lab: .3 credit (9 contact hours).
Co-requisite: FPX 1002 or Consent.
Components: LAB: Laboratory

FPX 1013 (0.3 credit hours)
Introduction to Pneumatic System Maintenance Lab
Introduces pneumatic system maintenance. Covers the skills required to service modern pneumatic and air preparation systems. Includes a general discussion of the safe working practices required with fluid power systems. Lab: 0.3 credit (9 contact hours).
Co-requisite: FPX 1003 or Consent.
Components: LAB: Laboratory

FPX 1014 (0.55 credit hours)
Hydraulic System Components and Applications Lab
Introduces basic fundamentals of hydraulic component, system design, and operation. Covers higher level schematic layout and design as well as the specifics involved with the actual component selection. Provides an opportunity to design and build actual hydraulic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion of the safe working practices required with fluid power systems. Lab: 0.55 credits (16.5 contact hours).
Co-requisite: FPX 1004 or Consent.
Components: LAB: Laboratory

FPX 1015 (0.55 credit hours)
Pneumatic Systems and Components Lab
Includes the application of basic fundamentals of pneumatic components and operation. Covers schematic layout and design as well as the specifics involved with the actual component selection. Provides the opportunity to design and build actual pneumatic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion on the safe working practices required with fluid power systems. Lab component for FPX 1005. Lab: 0.55 Contact Hours (16.5).
Co-requisite: FPX 1005 or Consent.
Components: LAB: Laboratory